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TONING FORMULÆ,

AND INSTRUCTIONS FOR PRINTING WITH THE

NEW SUPER-ALBUMENIZED SAXE AND RIVE PAPERS,

AND

SUTTON'S PATENT ALBUMENIZED PAPER,

MANUFACTURED BY

MESSRS. LAMPRAY, TIBBITTS & Co.,

44, PATERNOSTER ROW, LONDON, E.C.;

WITH

VARIOUS TONING BATHS,

AND PRACTICAL HINTS ON SUCCESS AND FAILURE IN POSITIVE PRINTING.

MANUFACTORIES AT

HAMMERSMITH, WESTMINSTER, AND JERSEY.

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Price Sixpence.

Entered at Stationers' Hall.

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TONING FORMULÆ, &c.

ALTHOUGH these papers yield excellent results with *any* ordinarily good printing and toning process properly manipulated, it has been considered advisable, in consequence of numerous requests, to publish the formulæ recommended by the manufacturers, and which, either in their own practice or in that of others, when applied in strict accordance with the instructions herein contained, have never been known to fail. They have, moreover, the advantage of extreme simplicity, so that they may be used by the amateur with the same success as by the most accomplished professional artist.

The formula recommended for sensitizing is as follows :—

Distilled Water...	1 ounce
Nitrate of Silver	80 grains.

The paper should be floated on a sufficient quantity of solution, made in the foregoing proportions, for about three minutes, great care being taken to avoid the formation of air-bubbles, so that the entire surface may be rendered sensitive to the action of light. The most convenient method for those not engaged in printing on a large scale, and when the paper is sensitized in smaller pieces than a half or whole sheet at a time, is to pin it by one corner (with *black* pins) to a small deal rail placed horizontally. If sensitized in whole sheets it may be hung over the rail transversely, so as to drip from two opposite corners at the same time. It is an advantage for the paper to dry rapidly, and it is, therefore, advisable, when convenient, that it should be hung in a warm room, where the temperature is not *too* high, the greatest care being taken to exclude draughts, or dust, or soot from the fire or stove used for the purpose of heating. It is important, also, that it should be *thoroughly* dried, or it will cockle in the frames, particularly if the backs or pads are at all damp. The strength of the sensitizing solution must be always kept up to that indicated in the above formula, or thereabouts, more silver being added (from a stronger solution, previously prepared for that purpose) after every three or four whole sheets have been excited. It is found in practice, on a large scale, that the better plan is to add one ounce of a solution of 150 grains of silver to an ounce of water, after floating every three sheets, whole size. This keeps the solution of nearly a uniform strength. After a few sheets have been sensitized, stir the bath well, as the upper part will have lost a good deal of the silver it previously contained. The solution will become discoloured with use, and when that is the case, add a little kaolin (a table-spoonful to every pint of solution), and filter or draw it off with a syphon, after it has stood a few hours to subside. The solution in the nitrate bath should be of a *uniform* depth of *not less* than a quarter of an inch. When it is necessary to excite the paper over-night, in summer time, it should be kept in a cool place, from which the air is excluded, or it may become tinged with yellow. *It is important that all the operations, until the print is fixed, be performed in a room from which white light is rigorously excluded.* Print from an intense negative, with strong contrasts in direct sunlight, and from a feeble one in diffused light.

The paper having been printed, the prints are to be *thoroughly* washed, before toning, in several changes of water, the first of which should be soft, or distilled, *not hard* water, the washing to be continued until all trace of milkiness has disappeared, thus showing that the free nitrate of silver has been removed. When the prints are numerous, six or seven changes will be required. When this has been done, they are ready for immersion in the toning bath, composed in the following proportions :—

Water (not hard)	120 ounces
Chloride of gold	15 grains
Bicarbonate of soda	75 grains.

First of all, prepare a solution of bicarbonate of soda in water—75 grains to the ounce of water. [This solution should be filtered, and kept ready for use.] Next, pour six pints of water (120 ounces) into the toning dish, and add the fifteen grains of gold (previously dissolved in distilled water), stirring it with a glass rod until it is incorporated. Then add one ounce of the soda solution, stirring again. When all trace of the original yellow tint has disappeared, the bath is ready for use. It is to be observed that the quantities given are merely intended to indicate the *relative proportions* of the constituents of the solution. A larger or smaller bath may be made as required, care being taken to preserve the proportions laid down above. This bath should be prepared some time before it is required for use ; if made half an hour before, it will work better, but it will not keep more than a few hours. The washing previous to toning, and the toning, should be done in the dark, or by yellow light. The prints should be taken one at a time, and laid face downwards in the toning bath, care being taken to expel any bubbles that may arise. After a dozen or so have been placed in the dish, according to the quantity of solution in use at the time, the print at the bottom should be examined, and the others in rotation, and removed as the toning is completed. They should all be turned over and kept in motion, to prevent uneven toning. The quantity of solution indicated will tone from fifteen to twenty sheets of Saxe paper, and from twelve to fifteen sheets of Rive, after which more gold should be added, with soda in proportion, or a new bath made up, should it have become much discoloured.

The acetate of soda and gold toning is, however, recommended for general use, giving excellent results in experienced hands, without any mishap. For the use of those who prefer this latter method of toning, the following formula is appended :—

Water (not hard)	80 ounces
Chloride of gold	15 grains
Acetate of soda	7½ drachms.

Twenty-four hours, at least, should elapse after this solution is prepared before it is used, and after each time of using it should be filtered, fresh gold and acetate being added. This system of toning is better adapted where it is required to tone only a few prints at a time. The solution will keep for weeks, and may be used over and over again. It is probably the safest and most satisfactory formula in use.

Using these formulæ, *any required tint may be produced with these papers*, the printing and toning being stopped at the proper time. For instance, if brown tones are required, the printing should be allowed to go on until the print is but a very little deeper than it is desired that the finished proof should appear, and the toning must be brought to a reddish purple. Sepia, dark purple, black, and the much admired violet tones, are obtained by printing deeper, and toning until the bronzed shadows are black, or nearly so. A little practice will enable the printer to regulate the different degrees of printing and toning with the greatest nicety. The sooner the prints are

toned after they are taken from the frames, the better, as, by delay, they not only take longer toning, but the risk is increased of losing the purity of the whites. If the prints are not toned immediately after the preliminary washing, they should remain in the interim in a dish of water. The best dishes for toning are flat *glazed* earthenware or porcelain ones, about 2½ inches deep.

Saxe paper, generally, tones somewhat more rapidly than Rive, but it has a tendency to lose more of its colour in the fixing, and it may therefore be toned nearly blue. For the same reason it should be printed a little deeper.

The results from the two papers being somewhat different, the artist will find it very convenient to keep a supply of each in stock. Saxe gives better results from hard negatives, whilst Rive is preferable for negatives which are delicate and full of half-tones.

The prints having been toned, they are next to be well rinsed in clean water, and then fixed in a solution composed in the relative proportion of four ounces of the BEST hyposulphite of soda to one pint of water. This solution should be fresh and kept free from acidity by the addition of a little chalk, and too many prints should not be immersed in it at the same time. There need not be more solution in the dish than is sufficient to cover the print, if the prints are fixed, as is preferable, singly. The prints may remain in this bath from five to ten minutes, and should be constantly turned over, individually, beginning with the lowest print, and proceeding upwards, in order that the solution may take effect on every part of the picture, and to prevent uneven fixing. Thin paper requires less time than thick, and the action of the hyposulphite of soda is more rapid in warm weather than in cold. After fixing, the prints must be *thoroughly* washed in successive baths of clean water. Too much attention cannot be given to this the final operation, without which the prints, by whatever process they may be toned, will have no claim to permanency. The simplest and most efficient plan is to use one of the newly-invented porcelain pans with a self-acting syphon. They keep the prints constantly in motion, and fill and empty themselves, alternately, without the slightest attention being required. If these are used there is no risk of the prints being torn, or of their fading from insufficient washing.

Saxe and Rive papers are made of three thicknesses. The heaviest is termed *thick* or "*positive*," the next *medium*, and the lightest weight *thin* or "*negative*." We append this remark, because the term "*medium*" has often been supposed to refer to the *quality* of the paper. It only has reference to its thickness or weight. The *quality* of each is the same.

The Rive paper may be readily distinguished from the Saxe by the difference in texture, but more easily by the watermark, to be found in one corner. The Rive is also a trifle the smaller of the two, and takes a higher gloss when albumenized than Saxe does. Saxe paper, generally speaking, is more uniform in its action than Rive, and it is also tougher.

VARIOUS TONING BATHS.

A few of the different toning solutions which have been proved, and give varieties of tones, are here added:—

No. 1.

Chloride of gold	1 grain
Phosphate of soda	18 grains
Distilled water	8 ounces.

This bath works shortly after it is mixed, or it will keep.

No. 2.

Chloride of gold	1 grain
Bicarbonate of soda	5 grains
Water (distilled)	8 ounces.

When it has become colourless add—

Chloride of lime	1 grain

This bath will work in an hour or two after it is made, or will keep. Excess of carbonate of lime may be used, instead of the carbonate of soda; it is then best made with hot water, but not used until it is cool.

No. 3.

Chloride of gold	1 grain
Borax	20 grains
Distilled water	8 ,,

This bath should be used within a few hours of mixing.

No. 4.

Chloride of gold	1 grain
Bicarbonate of soda	3 grains
Boiling water	2 ounces.

In a few minutes add—

Water (cold)	6 ounces.

This bath should be used within an hour.

If the prints in any of these baths are required a purple brown, tone to purple; if a purple black, tone deep black; if black, tone blue black. The toning bath should generally be used at a temperature of 60°. If lower than this in winter it should be warmed, which may most conveniently be done by placing the dish containing the toning solution in a larger one, and filling the latter with hot water until the desired temperature is obtained.

NEW BATH FOR BLACK AND WHITE TONES.

For persons desiring black and white tones the following formula can be *strongly recommended* for certainty and extreme simplicity. Take a saturated solution of carbonate of lime and chloride of lime; filter and bottle for use. Five drachms of this solution are to be added to eight grains of chloride of gold dissolved in two quarts of distilled water. It may be used next day, but will keep good for weeks. The *Photographic News*, commenting upon this bath, says:—"We examined many hundreds of prints in different stages of completeness, and apart from the extreme excellence of the photography, we may state that we have never before noticed such perfect uniformity of tone as these prints presented. The tones were throughout of a rich, warm black, giving, by virtue of the intensity of colour, the greatest possible brilliancy to delicate prints. This black prevailed throughout, never verging into blue, never suggesting red or brown—a rich, deep, warm black in the deep shadows, with a warm fleshy effect in the lights and half tones. * * * The toning solution thus made is very weak; it may be used within a few hours of mixing, but is better used next day, and will keep a few weeks. The paper is excited on a strong silver bath, and a little over-printed, but not very much. A large number of prints are immersed in the toning bath at once, and left with only occasional attention, as there is scarcely any danger to be apprehended to render watching necessary. Nearly an hour sometimes elapses before the print has attained the deepest black which can be obtained, and even if left longer it does not readily pass into the slaty blue tint of over-toning. It will be seen that a solution of chloride of lime, if long kept and not closely stoppered, would gradually change its character; carbonic acid being absorbed, and carbonate of lime being precipitated. But this need not happen to an appreciable or hurtful extent if due care be used."

READY-MADE TONING BATH.

A very excellent gold toning solution, in a concentrated form, is sold by us in bottles, ready for use, price 3s. and 6s., and will keep an indefinite length of time. It is always to be depended upon, gives capital results, and saves a great deal of trouble and waste.

HINTS ON SUCCESS AND FAILURE.

As all photographers know, one operator will succeed and another will fail, even with precisely the same materials and nominally the same formulæ. We cannot by the use of any materials or formulæ *guarantee* success in all hands; but we can supply such materials and such recipes as *ought to succeed*, and we can point out some of the causes of failure.

Weak Prints.—The primary cause of weak, feeble, poor prints, is the use of a thin or fogged negative. Without a good negative, it is impossible to obtain good prints. If the negative be good and the prints poor, it may arise from several causes—the nitrate bath being too weak or too acid; the paper not floated long enough or too long; not being sufficiently printed; being over-toned, left too long in the fixing bath, or in the first washing water after fixing. A marbled or mottled effect is often due to the use of a weak silver bath.

Mealiness.—This is a term used to designate a fact with which many photographers are familiar. It consists in a granular mottled effect of grey and red spots on the surface of the print. It most commonly occurs where the negative used is thin, and does not permit very deep printing. It sometimes proceeds from the use of a very acid printing bath; sometimes from using a toning bath when too recently mixed, or containing free acid, or from using a lime bath containing too much chloride of lime. The best remedy, when the tendency exists, is slow toning; an old acetate bath has the least tendency to produce it. In some cases submitting the print, prior to toning, to a bath of acetate of soda, without gold, is found to check the tendency to mealiness.

Rapid Discolouring of the Excited Paper.—The use of an alkaline nitrate bath, or of a bath containing acetic acid, will cause this, or keeping the paper in a warm and damp place; and the fumes of ammonia, hydrogen gas, &c. After exciting, the paper should be dried in a warm place, and then kept in a cool dry one, and of course quite dark. Changing the prints in the frames, or examining the progress of the print and toning or fixing in daylight, are frequent causes of dull degraded whites. The paper being kept too long between exciting and finishing the picture produces a similar effect.

Irregular Bronzed Marks.—Impurities on the surface of the sensitizing solution.

Yellow Mottled Stains in the Print arise from using an old or weak hypo bath, or allowing the prints to stick together whilst fixing.

Brown and Metallic Stains often arise from handling the prints before fixing with fingers which have touched hyposulphite of soda.

Hard Prints wanting in Half Tone, when not the fault of the negative, may arise from using the silver bath too strong.

Specks and Marks of various kinds often arise from dust or marks at the back of the negative, or on the glass of the printing frame.

Red Circular Spots.—Air bubbles under the print whilst toning.

Prints refusing to Tone.—This will arise sometimes from allowing too long a time to elapse between exciting the paper and toning; or from the gold bath becoming inert or exhausted, in which case add a little more fresh gold solution; or from putting the fingers into the gold solution after they have touched hyposulphite of soda, and so decomposing the bath. The use of old collodion baths for exciting hinders toning.

PRINT RED AFTER FIXING.—Under-toning.

PRINT HAS A COLD, ASHY, BLUE COLOUR, WHEN DRY.—Over-toning.

THE ALBUMEN LEAVING THE PAPER generally arises from the silver bath being too weak.

A BLOTTED AND BAD TINTED COLOUR sometimes arises from the washing before toning not having been carried far enough, and from the print having been washed in water containing lime.

DIRTY WHITES are often to be traced to the use of a fixing bath that has been employed before, or to a discoloured nitrate bath.

THE WHITES OF THE PRINT ARE NOT SUFFICIENTLY PURE, BUT GREY AND DIRTY.—This may arise from exposure to light; use of ammonio-nitrate of silver, in damp and warm weather; contact with ammonio-nitrate paper; use of damp flannel on the back of the paper, or of flannel impregnated by frequent use with ammonio-nitrate of silver; too much exposure to the heat of the sun.

The exciting, printing, toning, and fixing should, where it is possible, be done within one day; and the utmost care and cleanliness used throughout. The fixing bath should not be used twice, and should contain one ounce of hyposulphite of soda in five ounces of water.

Many defects and failures, not otherwise explicable, arise from the use of impure chemicals. It is therefore economical, both as regards time and money, to procure the very best that can be had, quite irrespective of the cost.

Some other causes of failure may be found, with their remedies, set forth in Mr. Sutton's "Treatise on Positive Printing;"* a complete manual of this branch of the art, which will well repay an attentive perusal.

We may here observe that care and cleanliness are the great secrets of success in photographic printing. Let every vessel, bottle, and dish have its especial use, and confine it to that.

PAPER FOR EXPORT.

A paper is kept in stock, *specially treated for hot climates*, which will be found more suitable for export to the tropics than any other yet prepared for that purpose. It will keep good for *many years*, and, if properly packed, is not affected by the sea voyage.

Every ream is carefully tested by the manufacturers, before it is sent out.

Trade price 9*s. per single quire,* 9*s.* 6*d. free by post, securely packed, or* £8 5*s. per ream, net cash—Saxe or Rive, thick, medium, or thin. Every sheet warranted perfect. All orders must be accompanied by a remittance. A sample sheet free by post for* 8*d. in stamps.*

PAPER ALBUMENIZED TO ANY FORMULA.

TINTED ALBUMENIZED PAPERS.

Prints produced on the albumenized papers manufactured by this firm may be tinted in a moment of any desired colour, by immersion in a solution of Mr. Sutton's "Photographic Tints," sold in boxes, price 6s., containing one bottle of each of the following colours :—Rose, India tint, mauve, green, flesh, and blue.

SUTTON'S PATENT ALBUMENIZED PAPER.

The advantages claimed for this paper over that manufactured in the ordinary way, and which are now causing it to be very extensively used, are :—

* London : Lampray, Tibbitts, and Co., 44, Paternoster Row. Price 1s., post free 1s. 1d.

I. The coating of the plain paper, prior to albumenizing, with a waterproofing solution of india-rubber causes the paper to be *entirely insulated and rendered impervious to aqueous solutions or atmospheric influence, and excluded from the action of the chemical agents employed in the various processes used in producing a photographic print.* The sizing and composition of the paper—fertile sources of fading and defective toning—are thus rendered comparatively unimportant, and the substances used in mounting the finished picture, almost invariably affecting, more or less, the permanency of the print, are thus also deprived of their usual injurious influences. The waterproofing effect of the solution, and at the same time the peculiar value of the patent process for photographic purposes, are proved in the following manner:—Take a piece of common blotting or bibulous paper as porous as possible, and immerse one-half of it in the patent solution. When dry, the portion that has been treated with the patent solution can be written upon like ordinary writing paper, thus showing that the pores of the paper have been effectually closed by the solution.

II. The waterproofing solution adds to the strength of the paper, rendering it tougher, and enabling it to withstand long and repeated washings without so great a risk of tearing as would be incurred with the same plain paper prepared in the ordinary manner.

III. Owing to the adhesive nature of the india-rubber film, the albumen adheres firmly to it, and through it to the paper, and does not rise in bubbles or blisters.

V. The surface of the paper prepared by the patent process is peculiarly hard, delicate, grainless, and glossy, the inequalities in the texture of the plain paper being removed by the coating of india-rubber on which the albumen rests.

VI. Owing to the fineness of the surface thus produced, the albumen is brought into close contact with the negative, *ensuring a sharper print, and to the fullest extent developing the minutest detail in the negative, especially in very deep shadows.* With ordinary paper, as is well known to all experienced photographers, a good deal of detail which may be really existing in the negative does not get transferred to the positive print. This peculiar excellence renders the patent paper pre-eminently adapted for *cartes de visite*, landscapes, and stereoscopic views.

VII. It prints more readily, and tones more easily, more equally, and with greater certainty than any other paper, and yields rich, warm, brilliant proofs of any desired tint (*the plain paper having no influence over the toning*), so that it is almost impossible unintentionally to produce a really bad print upon it.

VIII. The prints are more vigorous and possess greater depth of tone, owing to the albumen being retained on the surface of the paper, *the image being formed entirely on the albumen*, and for the same reason the proofs tone free from mealiness or any other similar defect.

IX. The whites of the picture do not turn yellow, and the paper keeps longer after sensitizing.

X. The paper being coated on both sides with a waterproof film *before albumenizing*, there is less risk of fading through the retention in the fibre of the hyposulphite of soda used in fixing the print.

XI. There is less risk of fading through the absorption of moisture.

This paper does not present any visible trace of the operation to which it has been subjected, the purity of colour remaining as before, and the extremely slight smell arising from the patent solution passes off in the process of printing.

The patent paper is printed upon precisely n the same way as any other albumenized paper; no alteration being required either in its manipulation, or in any of the solutions employed, but Mr. Sutton *recommends* floating five minutes on a silver bath of 100 grains. [See Mr. Sutton's "Treatise on Positive Printing," already mentioned.]

Although sold at a nominally higher price, it is, in reality, cheaper than paper prepared in the usual manner, since, with ordinary care and proper manipulation, there need be no waste. With some kinds of paper, as is well known, the proportion of waste prints is very considerable. [See *Photographic Notes*, 1st December, 1862; and the *Photographic News*, of 12th December, 1862.]

A specimen print (card portrait of Mr. Sutton) will be sent post free on receipt of 20 stamps.

Price of the patent albumenized paper 16s. per quire (16s. 6d. free by post), or £15 per ream, net cash. Sample sheet, post free, 12 stamps.

CAUTION.

It having come to the knowledge of the makers of these papers that other papers have been sold, both in England and abroad, represented to be made by them, they find it necessary to call attention to the circumstance, and to announce that every sheet of paper of their make bears a trade mark on the back, thus— with the exception of Mr. Sutton's albumenized paper, which is stamped on the back—

"SUTTON'S PATENT."

These papers, it is believed, have a higher surface than any other in the market, and this surface is produced with perfectly pure, fresh, undiluted albumen, without gelatine or any other foreign substance. It may here be remarked that it is not necessary, as has been erroneously supposed, that in order to produce a highly glazed surface the albumen must be kept until it is stale. The glaze on these papers is produced with albumen seldom more than three, and frequently only two, days old.

RESINIZED PAPER,

Prepared in strict accordance with Mr. H. Cooper's improved Formula—and the only paper recommended by him.

It is specially adapted for whole-plate pictures and enlargements, giving great delicacy and softness with good definition and transparency in the shadows. It is also well suited for reduced copies of engravings, &c., &c., and is capable of receiving the finest finish, either in oil or water-colour, without additional preparation.

It may be kept for an indefinite length of time, prints very rapidly, and can be used when there is not sufficient light for printing on albumenized paper.

DIRECTIONS FOR SENSITIZING, &c.:—

Float on a silver bath of 60 grains to the ounce (acidulated with 2 drops of nitric acid to 10 ounces), for six or eight minutes. Dry rapidly. Print a little darker than required. Wash

in two changes of *distilled or filtered rain water*, and afterwards once or twice in common water. Tone in a bath of acetate of soda and gold in the proportion of 20 to 1, and fix in the usual manner. Finally, immerse the print in boiling water. The toning bath works better if made a week before using; and neither that nor the fixing bath should be used a second time.

Price 12s. per quire net (12s. 6d. free by post); sample sheet, post free, 8 stamps.

THE NEW GERMAN ALABASTER ENAMEL PAPER.

SILVER BATH.

80 to 85 grains nitrate of silver.
1 oz. distilled water.

The bath must be rendered acid so as to quickly redden litmus paper. Float about five minutes. After printing till the shades become bronze coloured, wash in several waters, into the last of which put a little acetate of soda.

TONING BATH.

(Sufficient for Six Sheets.)

15 grains of chloride of gold,
150 ,, bicarbonate of soda,
36 oz. distilled water, and it is advisable to add
15 grains citric acid, *or*
1 oz. acetate of soda, *or*
1½ oz. phosphate of soda, in order to get the desired tone.

FIXING BATH.

1 part hyposulphite of soda,
½ ,, carbonate of soda,
8 ,, water, is enough to produce a good result.

Price 12s. per quire, (by post, free, 12s. 6d.) net; sample sheet, post free, 8 stamps.

BEYRICH'S ENAMELLED PAPER.

SILVER BATH.

One part nitrate of silver to five parts water. The paper should remain in the bath from three to four minutes, and should then be allowed to dry slowly by the warmth of the room. For this purpose it should be hung, not by one corner, but the whole width, in order to prevent it from rolling up, which renders it liable to crack. Wash before toning, as with ordinary albumenized paper.

GOLD BATH.

To 5½ oz. Troy of distilled water, of not more than 111 deg. Fah. are to be added 2¾ grs. Troy of chloride of gold (2¾ grs. Troy to 1 sheet of paper), 28¼ grs. Troy of bicarbonate of soda, and a solution of 9⅜ Troy of citric acid in 1 1-16th oz. Troy of water. The prints are to remain in this bath until they have assumed a violet tone, which in drying changes to blue. If the prints remain too long in the gold bath they assume a chalky appearance.

SODA BATH.

One part hyposulphite of soda; water eight parts. The prints having been in this bath about ten minutes, a weaker bath of one part hyposulphite of soda to sixteen parts water is to be applied to them.

Wash after fixing, as with ordinary albumenized paper. In drying, care must be taken that the temperature is not too high.

Price 13s. per Quire (13s. 8d. free by post) net; Sample Sheet, post free, 12 stamps.

BEYRICH'S ENAMELLED CARDBOARD.

The directions to be observed are precisely the same as those for the enamelled paper prepared by this maker, with the exception that the prints are to be washed in water for at least an hour after toning and before fixing, and are to remain 15 minutes in the first fixing bath. In order to prevent blistering, the prints are to be placed, before the final washing, in a bath of 1 part glacial acetic acid to 20 parts water, in which they are to remain five minutes. The cardboard must be fastened to dry at each corner, to prevent it rolling and cracking. Sensitize shortly before printing.

Price 14s. 6d. per quire (free by post 15s. 6d.) net; sample sheet, post free, 15 stamps.

*** *The above are Mr. Beyrich's formulæ. We do not find it necessary to depart from those found suitable for the ordinary albumenized papers.*

SAMPLE PACKETS.

Sample packets containing quarter sheets of each of the following papers, viz., thick and medium Saxe, and thick and medium Rive, post free, 8d.

Sample packets containing quarter sheets of each of the following papers, viz., Sutton's patent paper; thick, medium, and thin Saxe; thick and medium Rive; enamel and resinized paper, post free 1s. 3d.

☞ **Shippers and the Wholesale Trade Supplied on Special Terms.**

LAMPRAY, TIBBITTS & Co., 44, PATERNOSTER ROW,
LONDON, E.C.